UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,238	08/08/2001	Robert J. Laferriere	Gems0136/YOD	9904

68174 7590 06/09/2009

GE HEALTHCARE
c/o FLETCHER YODER, PC
P.O. BOX 692289
HOUSTON, TX 77269-2289

EXAMINER	
SAADAT, CAMERON	
ART UNIT	PAPER NUMBER
3715	

MAIL DATE	DELIVERY MODE
06/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/682,238	LAFERRIERE ET AL.	
	Examiner	Art Unit	
	CAMERON SAADAT	3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/4/209*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16,17 and 19-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16,17 and 19-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In response to amendment filed 3/4/2009, claims 16, 17, 19-42 and newly added claims 43-46 are pending. Claims 1-15 and 18 are cancelled.

Claims 28-43 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slattery et al. (USPN 6,514,085; hereinafter Slattery) in view of Ross et al. (USPN 6,608,628; hereinafter Ross); further in view of Stein (USPN 5,684,952); still further in view of Riddle (US 5,444,709).

Regarding claim 28 Slattery discloses a method for collaborating between remote computing environments, including the steps of initiating a link between remote computing environments (Col. 4, lines 12-14); sharing a graphical user interface with the remote computing environments (Col. 7, lines 54-60); collaboratively interacting with a device coupled to one of the remote computing environments (Col. 7, line 40 - Col. 8, line 5); and wherein the second computing system 906/908 interacts with the device 26/40 by controlling the pod controller 24 of first computing system.

Regarding claim 34, Slattery discloses a system with collaborative, remote computing environments, comprising a first computing system (which includes: trainee premise equipment 12, pod controller 24, and network application program 32) coupled to user device 26/40; a second computing system 906/908 remotely coupled to the first computing system via a network; a user interface shared by the first and second computing systems for collaboratively interacting with device 26/40 (Col. 7, line 40 - Col. 8, line 5); and wherein the second computing system 906/908 interacts with the device 26/40 by controlling the pod controller 24 of first computing system.

Slattery discloses all of the claimed subject matter of independent claims 16, 28, and 34 with the exception of explicitly disclosing that device 26/40 is a medical diagnostic imaging system. Instead,

Slattery teaches a first trainer computer system that is coupled to user devices such as programmable logic controllers (PLCs), chemistry equipment or any other type of device. See Col. 3, lines 50-52. However, Ross teaches a collaborative computing environment allowing users to view and manipulate images generated by a medical diagnostic imaging system (Col. 1, lines 36-39; Col. 2, lines 40-48). Thus, in view of Ross, it would have been obvious to one of ordinary skill in the art to modify the collaborative training environment described in Slattery by providing a collaborative environment for a medical imaging device in order provide collaborative training directed to physicians in the field of medicine by allowing multiple users at different computer systems to collaboratively view and interact with biomedical images in real-time, thereby allowing remotely located physicians to collaborate by viewing an image of an anatomical object simultaneously and to provide instruction to a remotely located physician (See Ross, Col. 11, lines 48-50).

In addition, with respect to independent claims 28, and 34, Slattery discloses a collaborative remote computing environment using a Telnet network application program (See Col. 7, lines 40-50). However, it is not explicitly stated that the Telnet network application program is capable of supporting *plalform-independent operating systems.* Although not explicitly stated, it is the examiner's position that it is well known that Telnet protocol supports connections from various client computers running different operating systems such as UNIX-based and Widows-based computers. *See Microsoft Windows 2000 -Administering an ISP Installation, lines 1-8.* Therefore, if not inherent in the protocol of the Telnet network application program described in Slattery, it would have been obvious to one of ordinary skill in the art to modify the protocol of the Telnet network application program described in Slattery, by providing a Telnet application program that provides a collaborative environment between a plurality of client computers running *different operating systems,* thereby allowing one client computer to execute commands on a second remote client computer running a windows-based or UNIX-based operating system. *See Microsoft Windows 2000 - Administering an* ZSP *Installation, lines 1-8.*

The claims have been further amended from a first and second computing "system/environment" to a first and second "computer" in an attempt to further emphasize independence between the first and second computer. As per claims 16, 28, and 34, the combination of Slattery and Ross does not explicitly state that the first and second computers are completely independent of one another. However, Stein discloses a method for remotely training persons, the method comprising: providing a collaborative computing environment, between a trainee and a remote trainer, the collaborative computing environment comprising a first computer 12 operated by the trainee; and a second computer 10 operated by a trainer; and interactively instructing the trainee via the collaborative computing environment; wherein interactively instructing the trainee includes controlling the first trainee computing system via the second trainer computing system using control button 74 (See Stein, Col. 6, line 66 - Col. 7, line 7); wherein the controlling is performed in an operating system independent manner. For example, the operating system of the teacher controls the student workstation independent of any control of the operating system of the student workstation (See Col. 7, lines 4-6). Thus, in view of Stein, it would have been obvious to one of ordinary skill to modify the collaborative computing environment described in Slattery and Ross, by providing independent first and second computers, in order to allow a teacher to control a student workstation independent of any control of the operating system of the student workstation.

Regarding claims 32 and 42, Slattery discloses a remote collaborative environment of shared interfaces with the capability of capturing, transmitting screen data between computing systems (Col. 7, lines 54-60). Slattery does not explicitly disclose the feature of caching screen data. However, it is the examiner's position that providing a cache memory assembly in the central processing unit of a computer is notoriously well known feature for improving data transfer time, and it would have been obvious to a person of ordinary skill in the art to provide caching of computer data in order to provide faster delivery of information (See Newton's Telecom Dictionary, P. 120 cache memory).

Regarding claim 39, Slattery discloses a method wherein providing the shared user interface comprises providing mutual operability of an application configured for training the trainee (Col. 4, lines 17-19).

Regarding claim 31, Slattery discloses a method and system wherein the collaborative computing environment comprises capturing screen data for a first display and transmitting the screen data to a second display (Col. 7, lines 54-60).

Regarding claim 29, Slattery discloses all of the claimed subject matter with the exception of disclosing that the collaborative environment has platform-independent operating systems. Although not explicitly stated, it is the examiner's position that it is well known that Telnet supports connections from various client computers running Unix-based and Widows-based computers (See Microsoft Windows 2000 - Administering an ISP Installation, lines 1-5). In addition, Ross discloses a collaborative environment having platform-independent operating systems (Col. 5, lines 59-66). Hence, in view of Ross it would have been obvious to one of ordinary skill in the art to modify the collaborative environment described in Slattery by providing platform-independent operating systems in order to implement the collaborative visualization and interaction of data on any suitable platform including a conventional PC, a workstation, or PC-based systems located in a spacecraft.

Regarding claim 30, Slattery discloses a method wherein providing the shared user interface comprises providing independent and mutual operability of an application associated with the graphical user interface (Col. 4, lines 17-19).

Regarding claim 33, Slattery discloses a method, wherein collaboratively interacting with the device comprises collaborating operations with a plurality of persons operating in the remote computing environment (Col. 4, lines 38-42).

Regarding claims 35-38, Slattery discloses a system wherein the user interface comprises a graphical interface operable on one of the first and second computing systems, wherein the graphical

interface is simulated on one of the systems and wherein the simulation comprises screen data corresponding to the graphical interface (Col. 7, lines 54-60).

Regarding claim 40, Slattery discloses a system wherein the user interface facilitates real-time shared operability of the device (Col. 4, lines 40-42).

Regarding claim 41, Slattery discloses all of the claimed subject matter with the exception of explicitly disclosing a safety routine to prevent undesirable operation of the medical diagnostic imaging system. However, it is the examiner's position that providing a safety routine to prevent undesirable operation of a system is a notoriously well known feature for limiting the exposure of a computer or a group of computers to an attack from outside. Therefore, it would have been obvious to a person of ordinary skill in the art to provide a safety routine in order to protect the system (See Newton's Telecom Dictionary, P. 299 firewall).

Regarding claim 43, Slattery does not explicitly disclose a graphical input device. However, the examiner takes official notice that the feature of providing a graphical input device, such as a touch-screen display is an old and well-known type of user interface, and therefore would have been an obvious modification to one of ordinary skill in the art.

Regarding claim 46 Slattery discloses a collaborative remote computing environment using a Telnet network application program (See Col. 7, lines 40-50). However, it is not explicitly stated that the Telnet network establishes a link between two computers having different operating systems. Although not explicitly stated, it is the examiner's position that it is well known that Telnet protocol supports connections from various client computers running different operating systems such as UNIX-based and Widows-based computers. *See Microsoft Windows 2000 -Administering an ISP Installation, lines 1-8.* Therefore, if not inherent in the protocol of the Telnet network application program described in Slattery, it would have been obvious to one of ordinary skill in the art to modify the protocol of the Telnet network application program described in Slattery, by providing a Telnet application program that provides a

collaborative environment between a plurality of client computers running *different operating systems,* thereby allowing one client computer to execute commands on a second remote client computer running a windows-based or UNIX-based operating system. *See Microsoft Windows 2000 - Administering an* ZSP *Installation, lines 1-8.*

Claims 16-17, 19-27, and 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slattery et al. (USPN 6,514,085; hereinafter Slattery) in view of Ross et al. (USPN 6,608,628; hereinafter Ross); further in view of Stein (USPN 5,684,952); still further in view of Riddle (US 5,444,709).

Regarding claim 16, Slattery discloses a method for remotely training persons, the method comprising: providing a collaborative computing environment, via Telnet, between a trainee and a remote trainer for chemistry equipment or any other type of device (Col. 3, lines 49-52), the collaborative computing environment comprising a first computing system (which includes: trainee premise equipment 12, pod controller 24, and network application program 32, operated by the trainee in order to control user device 26/40 (Col. 6, lines 2 1-28); and a second computing system 9061908 operated by a trainer; and interactively instructing the trainee via the collaborative computing environment (Col. 4, lines 16-25); wherein interactively instructing the trainee includes controlling the pod controller 24 of the first trainee computing system via the second trainer computing system 9061908 (Col. 7, line 40 - Col. 8, line 5).

Slattery further discloses a collaborative remote computing environment using a Telnet network application program (See Col. 7, lines 40-50). However, it is not explicitly stated that the Telnet network application program is capable of supporting *platform-independent operating systems.* Although not explicitly stated, it is the examiner's position that it is well known that Telnet protocol supports connections from various client computers running different operating systems such as UNIX-based and Widows-based computers. *See Microsoft Windows 2000 -Administering an ISP Installation, lines 1-8.*

Therefore, if not inherent in the protocol of the Telnet network application program described in Slattery, it would have been obvious to one of ordinary skill in the art to modify the protocol of the Telnet network application program described in Slattery, by providing a Telnet application program that provides a collaborative environment between a plurality of client computers running *different operating systems,* thereby allowing one client computer to execute commands on a second remote client computer running a windows-based or UNIX-based operating system. *See Microsoft Windows 2000 - Administering an* ZSP *Installation, lines 1-8.*

The claims have been further amended from a first and second computing "system/environment" to a first and second "computer" in an attempt to further emphasize independence between the first and second computer. As per claims 16, 28, and 34, the combination of Slattery and Ross does not explicitly state that the first and second computers are completely independent of one another. However, Stein discloses a method for remotely training persons, the method comprising: providing a collaborative computing environment, between a trainee and a remote trainer, the collaborative computing environment comprising a first computer 12 operated by the trainee; and a second computer 10 operated by a trainer; and interactively instructing the trainee via the collaborative computing environment; wherein interactively instructing the trainee includes controlling the first trainee computing system via the second trainer computing system using control button 74 (See Stein, Col. 6, line 66 - Col. 7, line 7); wherein the controlling is performed in an operating system independent manner. For example, the operating system of the teacher controls the student workstation independent of any control of the operating system of the student workstation (See Col. 7, lines 4-6). Thus, in view of Stein, it would have been obvious to one of ordinary skill to modify the collaborative computing environment described in Slattery and Ross, by providing independent first and second computers, in order to allow a teacher to control a student workstation independent of any control of the operating system of the student workstation.

In addition, Slattery does not explicitly disclose the newly added steps of capturing screen data of a display of the first computer; transmitting the screen data to the second computer; detecting an input event initiated by the remote trainer on the second computer; transmitting a signal indicative of the input event; interpreting the signal at the first computer; transmitting image data from the first computer to a second computer; executing a command at the first computer in response to the input event. However these steps are old and well known in collaborative shared screen, computing environments as evidenced in Stein. See Stein, col. 5, line 44 - Col.6, line 67; and therefore would have been an obvious modification in order to provide a shared image between two computers. In addition, Slattery does not explicitly disclose the feature of caching screen data. However, the examiner has previously established the position that providing a cache memory assembly in the central processing unit of a computer is notoriously well known feature for improving data transfer time, and it would have been obvious to a person of ordinary skill in the art to provide caching of computer data in order to provide faster delivery of information (See Newton's Telecom Dictionary, p. 120 cache memory)

Finally, Slattery does not specifically disclose the newly claimed limitation of caching image data indicative of only a portion of the image (as per claims 16 and 44-45). However, Riddle teaches a system for transmission of real-time data streams over computer networks, wherein a plurality of data frames are transmitted from a data source. See Riddle, Col. 3, lines 1-15. Riddle also teaches a scenario where, "...if the transmitting node is performing temporal compression of video data, most transmitted frames only contain changes from the previous frame image; therefore if a frame is lost, the receiving node cannot reconstruct the image from succeeding incremental changes. So, Periodically (or when necessary) the transmitting node must transmit key a "key frame" containing a complete current image". Thus, in view of Riddle, it would have been obvious to one of ordinary skill in the art to modify the transmission of

images described in Slattery, Ross, and Stein, by identifying a difference in consecutive frames and selecting the difference as a key frame and thereby allowing transmission of a complete current image if a frame is lost during transmission of differential frame data, thereby providing a faster transmission of data since whole image data is not constantly being transmitted.

Regarding claim 17, Slattery does not explicitly disclose a UNIX operating system. However, it would have been an obvious matter of design choice to select a specific operating system for a computer, wherein no stated problem is solved or unexpected result is obtained by prescribing a UNIX operating system. Therefore it would have been obvious to an artisan to modify the computer system described in Slattery by providing a UNIX operating system in order to allow users and application programs to control the computer hardware.

Regarding claim 19, Slattery discloses a remote collaborative environment of shared interfaces with the capability of capturing, transmitting screen data between computing systems (Col. 7, lines 54-60). Slattery does not explicitly disclose the feature of caching screen data. However, it is the examiner's position that providing a cache memory assembly in the central processing unit of a computer is notoriously well known feature for improving data transfer time, and it would have been obvious to a person of ordinary skill in the art to provide caching of computer data in order to provide faster delivery of information (See Newton's Telecom Dictionary, P. 120 cache memory).

Regarding claim 20, Slattery discloses a method wherein providing the shared user interface comprises providing mutual operability of an application configured for training the trainee (Col. 4, lines 17-19).

Regarding claim 21, Slattery discloses a method wherein providing the shared user interface comprises simulating a graphical user interface for the device (Col. 5, lines 44-47).

Regarding claim 22, Slattery discloses a method and system wherein the collaborative computing environment comprises capturing screen data for a first display and transmitting the screen data to a second display (Col. 7, lines 54-60).

Regarding claims 23 and 25, Slattery discloses that the step of interactively instructing the trainee comprises remotely interacting with pod controller 24's operating system (software that controls the allocation of usage of hardware resources) for controlling chemistry devices 26/40. See Col. 3, line 67 - Col. 4, line 25.

Regarding claim 26, Slattery discloses a method wherein interactively instructing the trainee comprises remotely responding to operations of the device 26/40. See Col. 9, lines 5-16.

Regarding claim 27, Slattery discloses a method wherein interactively instructing the trainee comprises remotely interacting with a plurality of geographically separate trainees via the collaborative computing environment (Col. 8, lines 33-43).

Regarding claim 24, Slattery discloses all of the claimed subject matter with the exception of disclosing that the collaborative environment has platform-independent operating systems. Although not explicitly stated, it is the examiner's position that it is well known that Telnet supports connections from various client computers running Unix-based and Widows-based computers (See

Microsoft Windows 2000 - Administering an ISP Installation, lines 1-5). In addition, Ross discloses a collaborative environment having platform-independent operating systems (Col. 5, lines 59-66). Hence, in view of Ross it would have been obvious to one of ordinary skill in the art to modify the collaborative environment described in Slattery by providing platform-independent operating systems in order to implement the collaborative visualization and interaction of data on any suitable platform including a conventional PC, a workstation, or PC-based systems located in a spacecraft

Response to Arguments

Applicant's arguments with respect to claims 16-17, 19-27, and 44-45 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 28 and 34, Applicant argues that the references fail to disclose "collaboratively interacting with a medical diagnostic imaging system coupled to a first computer, wherein a second remote computer interacts with the medical diagnostic imaging system via the first remote computer". The examiner disagrees. Slattery discloses a system with collaborative, remote computing environments, comprising a first computing system (which includes: trainee premise equipment 12, pod controller 24, and network application program 32) coupled to user device 26/40; a second computing system 906/908 remotely coupled to the first computing system via a network; a user interface shared by the first and second computing systems for collaboratively interacting with device 26/40 (Col. 7, line 40 - Col. 8, line 5); and wherein the second computing system 906/908 interacts with the device 26/40 by controlling the pod controller 24 of first computing system. Slattery discloses all of the claimed subject matter of independent claims 16, 28, and 34 with the exception of explicitly disclosing that device 26/40 is a medical diagnostic imaging system. Instead, Slattery teaches a first trainer computer system that is coupled to user devices such as programmable logic controllers (PLCs), chemistry equipment or any other type of device. See Col. 3, lines 50-52. However, Ross teaches a collaborative computing environment allowing users to view and manipulate images generated by a medical diagnostic imaging system (Col. 1, lines 36-39; Col. 2, lines 40-48). Thus, in view of Ross, it would have been obvious to one of ordinary skill in the art to modify the collaborative training environment described in Slattery by providing a collaborative environment for a medical imaging device in order provide collaborative training directed to physicians in the field of medicine by allowing multiple users at different computer systems to collaboratively view and interact with biomedical images in real-

time, thereby allowing remotely located physicians to collaborate by viewing an image of an anatomical object simultaneously and to provide instruction to a remotely located physician (See Ross, Col. 11, lines 48-50). The claims have been further amended from a first and second computing "system/environment" to a first and second "computer" in an attempt to further emphasize independence between the first and second computer. As per claims 16, 28, and 34, the combination of Slattery and Ross does not explicitly state that the first and second computers are completely independent of one another. However, Stein discloses a method for remotely training persons, the method comprising: providing a collaborative computing environment, between a trainee and a remote trainer, the collaborative computing environment comprising a first computer 12 operated by the trainee; and a second computer 10 operated by a trainer; and interactively instructing the trainee via the collaborative computing environment; wherein interactively instructing the trainee includes controlling the first trainee computing system via the second trainer computing system using control button 74 (See Stein, Col. 6, line 66 - Col. 7, line 7); wherein the controlling is performed in an operating system independent manner. For example, the operating system of the teacher controls the student workstation independent of any control of the operating system of the student workstation (See Col. 7, lines 4-6). Thus, in view of Stein, it would have been obvious to one of ordinary skill to modify the collaborative computing environment described in Slattery and Ross, by providing independent first and second computers, in order to allow a teacher to control a student workstation independent of any control of the operating system of the student workstation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAMERON SAADAT whose telephone number is (571)272-4443. The examiner can normally be reached on M-F 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cameron Saadat/
Primary Examiner, Art Unit 3715